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ABSTRACT

This report investigates environmental knowledge, attitudes, and behavior among adult Americans. This sixth survey explores people's environmental behaviors to see what relationships exist among attitudes, knowledge, and activities. What adult Americans actually know about the environment is also assessed. Sections include: (1) "Summary and Overview"; (2) "The State of Our Environmental Knowledge"; (3) "The State of Public Concern about the Environment"; (4) "Environmental Action Orientation of American Adults"; (5) "Environmental Education for Children"; and (6) "Special Report on Outdoor Sports Enthusiasts." (CCM)

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The National Report Card on Environmental Knowledge, Attitudes and Behaviors

The Sixth Annual Survey of Adult Americans

National Environmental Education and Training Foundation

November, 1997

Roper Starch Worldwide

Turning Data into Intelligence Worldwide

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National Environmental Education and Training Foundation
November, 1997

N.E.E.T.F.

Washington, DC

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Preface and Acknowledgments

Having basic environmental knowledge is important to America. We are all connected to the environment through the places we live, the food we eat, the water we drink and the air we breathe. An understanding of what pressures come to bear on the nation's environment and how to alleviate those pressures is one key to a sound future.

This NEETF/Roper survey which, for the sixth straight year, looks at the opinions of Americans concerning the environment has a new dimension. This year we added an assessment of what adult Americans *actually know* about the environment. For the first time, we also looked at people's environmental behaviors to see what relationships there are among attitudes, knowledge and activities.

The news is mixed, but mostly troubling, with less than one third of Americans having a fairly simple knowledge of the causes or content of key environmental concerns. This gap in understanding will make it hard for policy makers to address some of our toughest issues. It will also make it difficult for members of the public to know what *they* can do to protect the environment.

We hope that the 1997 Report Card will help policy makers and other leaders to see the needs we have for improving basic environmental knowledge so that in the early part of the next century we will all receive a passing grade.

We wish to acknowledge the principal analyst of the data for this project, Dr. Lynn Musser, and also to thank her for her work on redesigning the survey instrument. Her assistant, Kim Hase, was extremely helpful in question development. David Lintern of Roper Starch Worldwide continues to be an outstanding partner in this ongoing research effort and we are grateful to Roper for their expertise.

Financial support for the project this year came from the US Environmental Protection Agency in Washington, DC, the Phillips Petroleum Company in Oklahoma, the Compton Foundation in California, Copper Mountain Resort in Colorado, and Snowbird Corporation in Utah. Without their support we would not have been able to collect, interpret and publish this important data.

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Summary and Overview

Two out of Three Americans Get a Failing Grade on the National Environmental Report Card

- Two out of three survey respondents (68%) failed to correctly answer nine or more of 12 simple questions on the environment.
- Only one in ten makes the "Environmental Dean's List" with 11 or more correct answers.
- There is an alarming lack of knowledge on some of our most critical environmental problems:
  - Only 23% of Americans are able to identify run-off as the leading cause of water pollution.
  - Only 33% of Americans know that burning fossil fuels is America's primary method for generating electricity, or what impact this has on air quality.

Misinformation may be as much of a problem as lack of knowledge

- People are two times more likely to believe (incorrectly) that factories are the main source of water pollution than they are to know the correct answer.
- Nearly half of all Americans think (incorrectly) that dams produce most of our electricity.

Policy-Makers Are Thwarted

- Lack of public environmental knowledge impedes policy-makers' ability to address some of our most complex environmental problems.
- Solutions to some issues (such as run-off water pollution) lie, in part, in individual citizen action. Such solutions will be difficult to achieve if three out of four Americans think other sources are the cause of the problems.
- It will be difficult to address issues such as acid rain and global warming if most people think power production comes from air-safe hydropower.

There's Some Progress Being Made

- The news on environmental knowledge is not all bad. Some environmental issues are generally known to the public, e.g., that most garbage ultimately ends up in landfills (83%), that species loss is due to habitat destruction (73%) and that vehicles are the leading cause of air pollution (69%).

- The US Environmental Protection Agency has 74% public name recognition.

The Majority of Americans are Supportive of Environmental Protection

- Over the past six years, support for environmental protection and regulation has remained high and constant.

- Women continue to be more supportive of environmental protection than men, but both are clearly supportive.

- Americans have been very consistent over the past six years in their belief that the environment and economy can go hand in hand, and four to one reject polarized positions on the environment.

Environmental Knowledge Can Have Counter-Intuitive Effects

- Increased knowledge of the environment helps people notice more compromises and lessen their overall support for certain types of environmental regulation as the *only* solution to environmental problems.

- Increased environmental knowledge does not affect general attitudes about the value of the environment and does not lessen support for clean air and water regulation.

- Environmental knowledge makes people less inclined to think we might face an environmental catastrophe in the next ten years.

Americans Are Highly Engaged in Environmental Activities and Causes

- Some 90% of our respondents regularly engage in at least 6 of 10 activities to protect the environment—saving water, conserving energy, recycling, etc.— with 25% engaging in 9 of these activities or more.

- Only one person in the survey said he or she never engaged in any of the listed activities.

- Fully 28% of Americans volunteer their time for an environmental cause.

Knowledge of Environmental Issues Positively Influences Participation in Pro-environment Activities

- Individuals who know that garbage ends up in landfills are more likely to recycle and cut down on household trash than individuals who do not know this fact.
- Individuals who know the major source of water pollution are more likely to take action to prevent it.
- Childless adults who know that cars are the major source of air pollution in the U.S., and who have alternative transportation available, are more likely to use the alternative.

Americans Overwhelmingly Want Our Children to Have Environmental Education in School

- Fully 95% of adult Americans and 96% of parents support children being taught environmental education in the schools.

Adults also Require Environmental Education

- There is no evidence from the survey that adults with children have more environmental knowledge than adults who don't have children, though conventional wisdom says children teach their parents about the environment.

Introduction

The 1997 NEETF/Roper Starch Worldwide Survey is a continuation of six years of data gathering about Americans' views on the environment. This year's survey looks at attitudes, knowledge and behaviors of people in the United States. Because similar questions have been asked on previous surveys it is possible to look at changes in these beliefs over time.

New to this year's survey is a set of twelve questions to assess the level of environmental knowledge of the American public. We were then able to look at the degree to which knowledge of the environment relates to behaviors that have a positive impact on the environment. We also included questions to assess the degree to which Americans support environmental education being taught in schools.

Description of Sample and Data Analyses

A total of 1501 adults, ages 18 and older, participated in this telephone survey. A process of random digit dialing selected participants; this insures that households with unlisted telephone numbers, as well as those with listed numbers, are included in the sample. Telephone interviews were conducted during evening hours and on weekends.

For the full sample, the margin of error due to sampling is plus or minus 2.5% at the .95 confidence level. Where appropriate, statistical analyses were done to test for differences between groups and for relationships between variables. Unless noted, only those relationships and differences found to be significant are included in this report.

Previous NEETF/Roper Starch survey reports were based on weighted samples. For weighting, the demographic characteristics of the random sample were compared with the most recent Census Bureau estimates and corrective weights were applied to ensure proper representation based upon age, sex, and educational attainment. Because of this year's larger sample size and the types of analyses done for this report, the results reported here are based on unweighted data. (A detailed report of statistical analyses may be obtained from the National Environmental Education and Training Foundation.)

The State of Our Environmental Knowledge

Since 1992, the NEETF/Roper Survey has assessed people's views of environmental policies and their own attitudes about protecting the environment. Views on such topics as whether they think environmental regulation has gone too far or not far enough, and beliefs about striking a balance between economic development and protecting the environment have been measured. In 1997, the survey was revised to better assess adult Americans' *knowledge* of the environment and how individuals behave with respect to environmental conservation in their personal lives. The survey now looks at whether people have basic knowledge about environmental issues, programs, technology and natural resources.

Most American Adults Get a Failing Grade on Basic Environmental Knowledge

The concept of environmental literacy is not a new one. There have been numerous efforts to measure "EQ", or Environmental Quotient. However, none of these efforts have become popular as a way to estimate whether American adults have adequate basic knowledge about the environment, e.g., the main causes of pollution, what it means to save water and energy, or where trash goes once it leaves the home.

The questions asked in this survey span many aspects of environmental knowledge and were pre-tested in a number of ways. The pre-testing included surveying environmental educators on what constitutes basic environmental knowledge, examining the print media for public accessible education opportunities about the environment, and by testing more than 50 possible questions with groups of many ages and backgrounds to ensure the clarity of the questions in an interview format. Of these 50 questions 12 were selected for use in the survey.

These questions are basic and not technical or complex. They measure only the most general understanding of the environment. More complicated questions (e.g. pollution and global temperatures or how to sustain ecosystems) were not used.

The 1997 NEETF/Roper Survey found some disturbing knowledge gaps. Only one third (33%) of adult Americans have a passing understanding of basic environmental information such as the leading causes of pollution and what fuels the nation's energy production.

The "Environmental Dean's List" Is Far too Short and Has Only Half as Many Women as Men

There is, of course, no real "Environmental Dean's List" but what if there were? The knowledge questions - fairly easy by most standards - found that fewer than one in ten adults in the U.S. receive a grade of "A." (That is, they could answer at least 11 of the 12 questions correctly.) Only 32% had 9 or more correct responses. What does this mean (other than the fact we may have a long way to go if we are to achieve a rudimentary knowledge of the environment)? There are some important implications.

Report Card

Subject: Environmental Knowledge

Student: The American Public

Grade	Percentage of Total Sample Receiving Grade	Percentage of Men Receiving Grade	Percentage of Women Receiving Grade
A (90 - 100%)	11%	17%	5%
B (80 - 89%)	10%	14%	6%
C (70 - 79%)	11%	12%	9%
F (0 – 69%)	68%	58%	79%

To begin with, a good performance on the 12 questions asked in the survey is mostly related to higher education levels. Those with less than a high school education averaged 4.1 correct answers and those who went beyond four years of college in their education averaged 9.1 correct answers.

Perhaps the most critical finding in the survey, with respect to demographic information, has to do with gender difference. It is clear that gender has considerable bearing on the number of correct responses to the questions. Looking at means, the difference is evident. Men averaged 7.8 correct answers while women answered an average of 6.2 questions correctly. Looking at percentages of those who received "passing grades," the differences are more pronounced: 43% of men received a passing grade while only 20% of women passed (9 or more correct answers).

There is no definitive way of accounting for this difference between men and women, but it is possible, that it is due to men generally having more formal science education than women. The education levels between men and women in the survey were not significantly different but there are documented differences between genders with respect

to amount of science education. This assertion is supported anecdotally by one of the question-development test or focus groups that took part in constructing the knowledge questions. Male and female students from an agricultural program at a university, who had equivalent numbers of science courses helped in pre-testing the questions. With this group, there were no differences between men and women in overall scores. This is certainly not conclusive but does support the notion that differences in science education may contribute to differences in knowledge.

The irony of men having higher knowledge scores than women is that women generally show more positive attitudes about the environment. They display more support for air and water quality regulation and the protection of endangered species, wetlands and natural areas. (See sections below)

Mid-Age Americans Most Knowledgeable

Age is significantly related to environmental knowledge. While one might intuitively expect the most environmentally knowledgeable group in America to be the young people, ages 18-24, who are fresh out of school, the group that knows the most about the environment are ages 45-54. This suggests that environmental knowledge may be acquired over time, and most likely through a variety of media - jobs, friends, televisions, etc. - as is the case with most adult learning. What we cannot tell from the survey is how the 45-54 age groups would have scored many years ago when they were young and fresh out of school. It is also noteworthy that the ages 65 and above group had the lowest levels of environmental knowledge. This difference could be due to less environmental knowledge being available to them over the course of their lives, or it could be a reflection of difficulties older people sometimes have with telephone interviews.

Mean Number of Correct Answers For Individuals in Different Age Groups	
Age of Respondents	**Mean Number of Correct Answers**
45-54	7.4
35-44	7.2
55-64	6.7
25-34	6.5
18-24	6.3
65 or older	5.3
Twelve questions were asked. Age groups are listed with the group with the highest mean first. Nine individuals did not give their age and, therefore, their data are not included here.	

As this is the first nationwide test of basic environmental knowledge, done through a Roper survey, we must be measured in the conclusions we draw. Some twenty-seven years after the first Earth Day, with all of the education programs established in schools over the past two decades and with considerable coverage of environmental issues in the media, that we have made considerable progress (with one third of adults passing a test that would have not seemed so simple some three decades ago) but we have much farther to go. On a test this basic, passing scores by nearly all the public could be a goal for the beginning of the next century.

Poor Environmental Knowledge Scores Mean Reduced Opportunities to Effectively Address Environmental Issues

The lack of basic or essential environmental knowledge can affect everyone. It is important to individuals as it affects their health and daily lives. However, it has the most serious implications for policy makers. If the public fails to understand complex or even simple environmental issues, it will be much more difficult to get their support for changes and remedial programs. Here are some examples:

Lack of knowledge of the main sources of water pollution

For lawmakers, government executives and corporate leaders, the lack of environmental knowledge can make it much more difficult to address certain emerging environmental problems.

Lately, the national news has been full of coverage of a wide range of threats to water quality. These include outbreaks of the toxic micro-organism Pfiesteria in tributaries of the Chesapeake Bay; contamination of some water supplies by cryptosporidium, a dangerous parasite; the growth in the number of water treatment facilities working to keep lawn and agricultural pesticides out of tap water; and a report that as recently as mid-October 1997, as much as one percent of our agricultural fertilizers may contain recycled toxic waste and heavy metals. These forms of water contamination along with oil from automobiles, sediment from eroded farm fields and trash from city streets and other "run-off" make up the main sources of water pollution in the nation. They have eclipsed factories and other pollution sources in the past decade.

Unfortunately, only 23% of Americans understand that the leading cause of water pollution in America is from run off and not primarily due to factories. Nearly one half of the survey respondents think that factories are to blame as the primary cause of water pollution in the U.S. This perception exists even though businesses, factories and municipalities, working with state and federal agencies, have taken great steps to improve their pollution treatment records. If people think someone *else* is the cause of the problem and not *them*, then unfair blame will be placed and limited resources will be misdirected.

Lack of knowledge about energy production and air pollution

As we approach the 25th anniversary of the Mid-East oil embargo, issues of energy production once again move into the public eye. In addition, recent concerns about global warming have brought the subject of coal and oil burning by industrial nations to the forefront of public debate. Policy leaders from hundreds of nations are preparing for the December 1997 global environmental conference in Japan. The U.S. government has taken a preliminary stand on the need for reducing green house effect-producing gases. In this context it would seem the public would be fairly knowledgeable about how our energy is produced. However, that does not appear to be the case.

The NEETF/Roper survey finds that the majority of Americans do not know what the leading sources of power production are in the U.S. Indeed, only 33% know how most electricity is produced. As with water quality, this issue is a result of lack of the right knowledge *and* a belief in the wrong information. While one out of three adults know our primary source of electricity production is from burning coal and other flammable material, nearly one half think incorrectly that hydroelectric plants (water power) are our main source of electrical power. In reality hydropower accounts for only about 12% of our total energy production.

As noted above, this issue involves both energy conservation and concern about air quality. Policy makers need to understand that misinformation with respect to energy production impedes progress on these issues.

Environmental Education Progress: hazardous waste, auto emissions, habitat loss and solid waste.

The 1997 NEETF/Roper survey also has much encouraging news. Some 67% of people seem to have a good grasp of what comprises a toxic waste material and 69% know that automobiles are the leading source of carbon monoxide (air pollution) in the U.S.

Although most respondents did not know the meaning of the term "biodiversity", some 73% are aware that the most common reason for the extinction of animal and plant species is habitat loss.

It is not too surprising that 83% of Americans know that most household garbage ends up in a landfill. There are many reasons why recycling programs have been broadly adopted across the country. These include education programs, the opportunity for direct action by individuals, and the adoption of many local recycling laws. What is less clear is which came first, knowledge of what happens to trash if it is not recycled (thus producing more support for recycling programs) or the adoption of programs that help to create more knowledge. It appears that both factors are at work. A basic understanding of where trash ends up probably facilitated the widespread adoption of recycling laws.

A matter of interest to all policy makers, the U.S. Environmental Protection Agency has good name recognition (74%) among the public. The respondents were asked to select from a number of similar sounding but fictitious government agencies. This question does not directly relate to knowledge of specific environmental issues but it does indicate that people have some understanding of which government agency is given responsibility for evaluating and taking steps to protect the environment at the national level. (See table on Environmental Knowledge Questions and the Percentage of Individuals Answering Each Question Correctly)

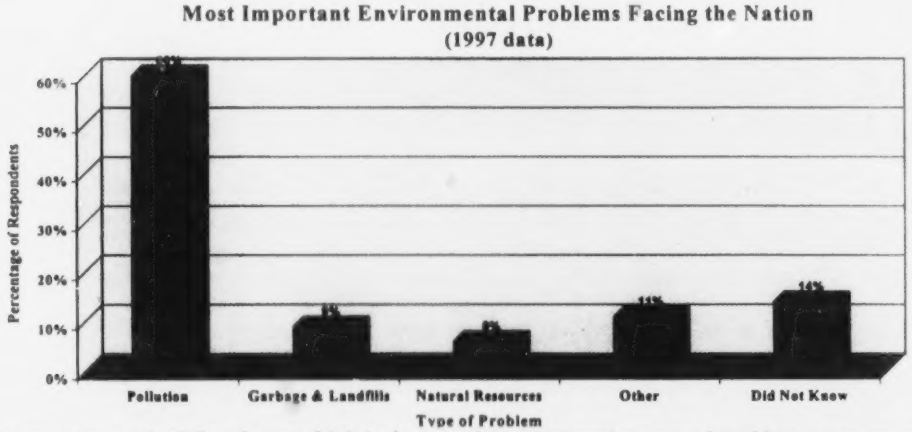
Environmental Knowledge Questions and the Percentage of Individuals Answering Each Question Correctly	
Content of Environmental Knowledge Question	**Percentage Who Answered Question Correctly**
The most common source of water pollution	23%
How most electricity in the U.S. is generated	33%
Definition of biodiversity	40%
The primary benefit of wetlands	53%
Protection provided by ozone in upper atmosphere	57%
Disposal of nuclear waste in the U.S.	58%
Recognition of a renewable resource	66%
Knowledge about materials considered hazardous waste	67%
The largest source of carbon monoxide (air pollution) in U.S.	69%
The most common reason for extinction of animal and plant species	73%
Environmental Protection Agency is primary federal agency that works to protect environment	74%
Where most household garbage ends up	83%
Percentages are based on the full sample of 1501 and are rounded to the nearest whole number.	

The State of Public Concern about the Environment

The NEETF/Roper survey was initiated in 1992 as part of the Times Mirror Magazine Company's conservation program. Times Mirror generously turned the survey over to the Foundation in 1996 as a result of its own internal reorganizations. This is the second year the Foundation has conducted the survey. Care has been taken to make sure that key information about Americans' attitudes and views on the environment is recorded each year so we can see evidence of shifts in public opinion arising from controversial political debates, national media campaigns and other factors. This survey is the only national environmental survey that builds on six straight years of trend data on American attitudes with respect to the environment.

Americans Express Concern about Environmental Problems and Pollution Tops the List

A new question in this year's survey asked respondents point blank and without any prompting what they see as the leading environmental issue we face in America today. The question was asked at the beginning of the interview so respondents would not be influenced by information they might assimilate from multiple choices presented to them during the remainder of the survey. Their answers were written down without any editing. The open-ended question approach (as opposed to multiple choice questioning) provided a strong indicator of what they believe deeply.



The question read: "What do you think is the most important environmental problem our country faces?" Percentages are based on the full sample of 1,501 and are rounded to the nearest whole percentage.

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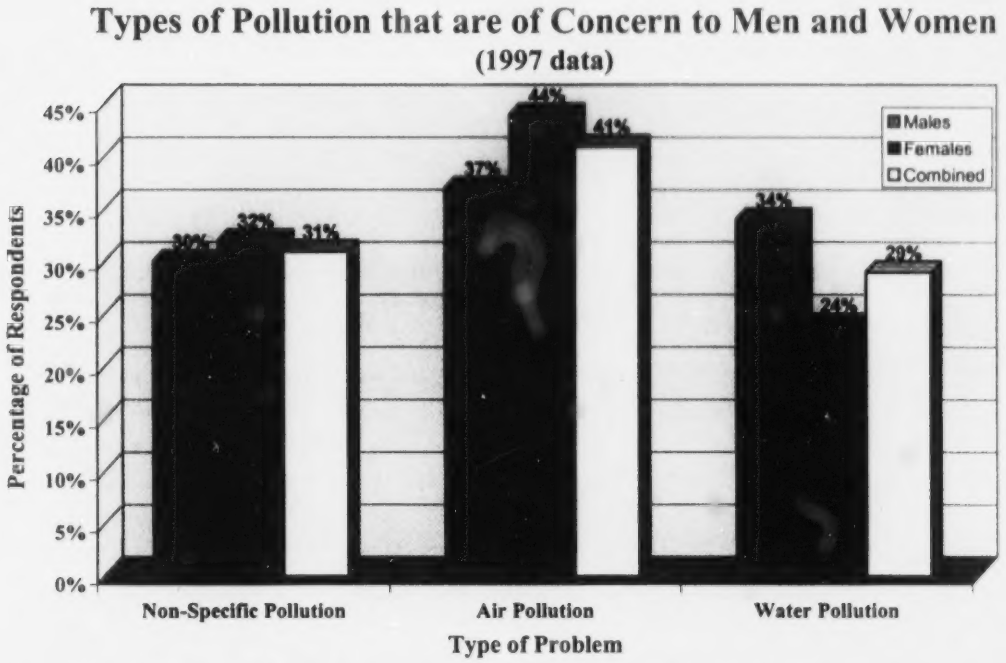
Fully 60% gave "pollution" as their primary concern, with more than half specifying air, water or some other pollution type. Pollution was named nearly 7 times more often than the next leading topic, which was garbage and landfills with 9% saying it was their top concern. Six percent cited depletion of natural resources as their number one concern. All other issues combined accounted for 11% of the responses. We should note that 14% said they could not answer the question or did not wish to venture an answer and these were placed in the "don't know" category.



Percentages are based on the 894 respondents who named some type of pollution as the most important environmental problem America faces. Individuals who named problems other than pollution are not included here. A small number of people named "land pollution." These individuals were included in the non-specific pollution category.

This strong concern about pollution—consistent with many other surveys—indicates that Americans are concerned about the effects of pollution and perhaps how it might affect them personally. Air and water are elements that affect everyone's health. Concerns about air and water quality can be contrasted with concerns over species loss, the loss of wetland areas or the disappearance of wild or natural areas in that these seem to be "out there" somewhere and do not as directly and personally impact the individual. (See later sections.)

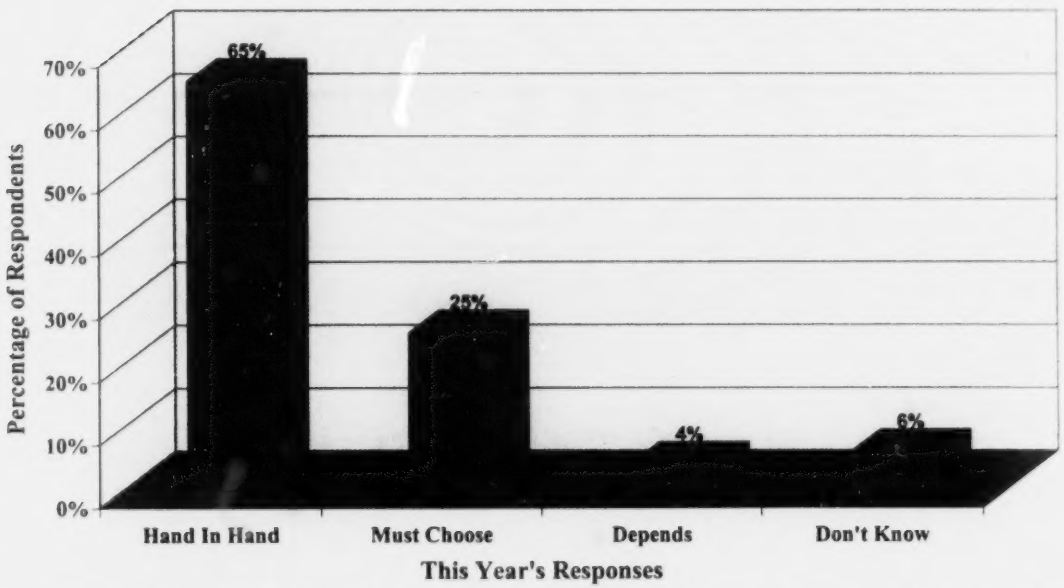
Americans Continue to Have Strong Views on how to Approach Environmental Problems: Six Years of Trend Data Reviewed

For the past six years, Americans have been reasonably supportive of the environment. The NEETF/Roper survey is unique in that it contains this trend information and can track changes in attitudes and viewpoints on such issues as regulation, compensation, government spending, and the potential for an environmental catastrophe.

Can the Environment and the Economy Go Hand In Hand?

Reading a newspaper or watching television, one might be tempted to think that the conflict between the environment and the economy could never be meaningfully resolved. While this would clearly be an overstatement, it is true that media coverage of public environmental debates often point out the differences in positions rather than the common ground. Political debates on the environment can also be cast in either-or terms.

Beliefs about the Relationship Between Environmental Protection and Economic Development (1997 data)



The question read: "Most of the time, do you think environmental protection and economic development can go hand in hand, or that we must choose between environmental protection and economic development?"

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Unfortunately, the polarization of environmental issues is not consistent with what Americans believe. For the past six years the public's message has been very clear. They believe that compromises can be achieved. In 1997, sixty-five percent of U.S. adults believe that compromises can be reached between environmental issues and economic development. They believe the economy and the environment *can* go hand in hand. They think that there is no need for environmental concerns to have such a polarizing effect on public policy debates.

In looking at trends in these data since 1992, this sentiment has been consistent. Over these years, the number of those thinking the environment and the economy can go hand in hand has remained constant as the majority view.

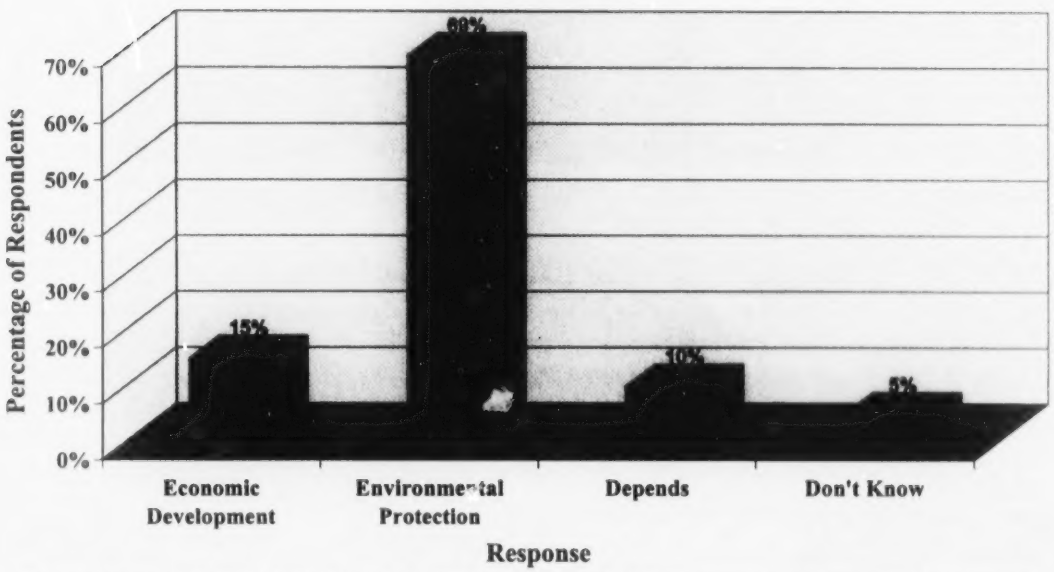
One of the most notable differences between this year's survey and past reports is the ability to make correlations between attitudinal questions and the amount of environmental knowledge a person has. We find in this year's NEETF/Roper survey that there is a clear positive correlation between believing the economy and the environment can go hand in hand and higher levels of environmental knowledge. Fully 74 % of the respondents who had top report card scores of 9 or more right answers believed in the hand-in-hand approach, compared to 52 % of those who answered five or fewer questions correctly. Education levels also relate strongly to this belief. The higher the education level, the more one thinks the economy and the environment can go hand in hand. In drawing conclusions from this information one can assume that increased levels of environmental knowledge can help people more clearly see opportunities for compromise.

When a Compromise Cannot Be Reached, What Would You Choose?

When people are asked to choose between the environment and the economy, fully 69% this year said they would choose the environment while only 15% said they would choose the economy. This is more than a 4 to 1 ratio. More than any other question in the survey, this question reflects the attitudes or feelings of the respondents toward the environment. It clearly shows a pro-environment attitude among members of the adult American population.

When relating responses to this question to the degree of environmental knowledge, we see a notable contrast between this question and the preceding question that asks whether people see that the environment and the economy can go hand-in-hand. In the preceding question, knowing about the environment had a significant influence on the answer with an 18 point spread occurring between high performers on the knowledge questions and low performers. With this question, however, there is no such relationship. This question addresses people's *feelings* about the environment more than their *views* about workable solutions or the effectiveness of environmental policies.

When a Compromise Cannot Be Reached: Environment or Economic Development?
(1997 data)

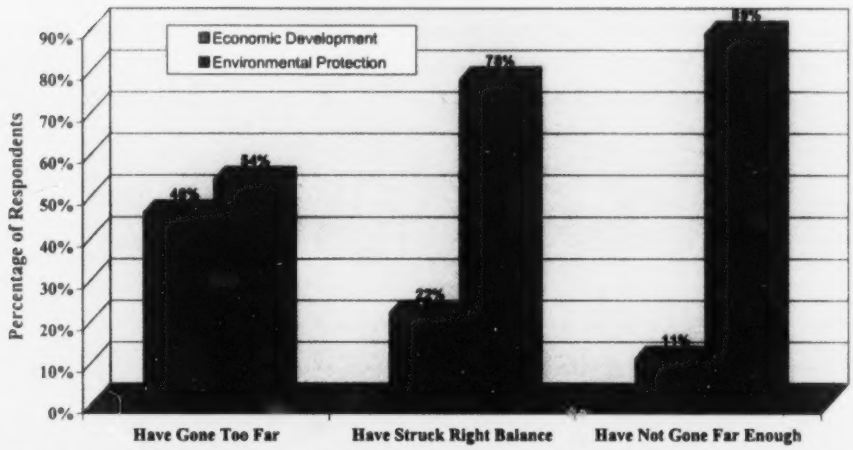


The question read: "When it is impossible to find a reasonable compromise between economic development and environmental protection, which do you usually believe is more important: economic development or environmental protection?

In the 1996 survey, the data showed a significant difference between the attitudes of men and women in responding to the survey. This trend is again evident this year. There is a 9 point (64 % compared to 73 %) spread between men and women showing, once again, that women are more pro-environment than men. This difference is consistent with last year's survey, which used weighted data and described this phenomenon as an "environmental gender gap".

Perhaps the most startling revelation of these data is that more than one-half (54%) of those who believe that governmental regulation of the environment has gone *too far* (16% of the total sample) opt for the environment when asked which they would choose. (See questions on views toward regulation of the environment below)

Comparison between Choosing the Environment or the Economy, and Views on Regulation (1997 data)



This Graph shows a comparison betweeen people choosing either the environment or economy, and their views on environmental regulation. Respondents were asked two separate questions: "At the present time, do you think environmental protection laws and regulations have gone too far, or not far enough, or have struck about the right balance? And "When it is impossible to find a reasonable compromise between economic development or environmental protection, which do you usually believe is more important: economic development or environmental protection?" Responses of individuals who answered "Don't know" to either question, or volunteered "It depends" for the question concerning economic development and environmental protection, are not included here. Thus, percentages are based on 1,163 respondents. Percentages are rounded to the nearest whole percentage.

How Far Has Environmental Regulation Gone In General?

Much national debate occurs over the need for and scope of environmental laws in the United States. Laws regulating air and water pollution, protecting natural areas and wetlands and conserving endangered species are often subjects of heated public discussion. People's views of these laws are a part of what the NEETF/Roper survey has measured since 1992.

When Americans are asked whether they think environmental laws and regulations have gone too far, not far enough or have achieved the right balance, almost three times as many people think that regulation has not gone far enough as opposed to gone too far. For some environmental issues, this support is overwhelming and almost universal. These data have been reasonably steady for three years but in the early 1990's indicated some reduced support with the low point coming in 1995.

This year, 17 % of respondents say that environmental regulation has gone too far. This percentage is the lowest in the past three years, but is not statistically different from last year's 19%, based on unweighted data, due to the three percent margin of error inherent in the sample size. Forty-six percent of those surveyed said they felt regulation had not gone far enough.

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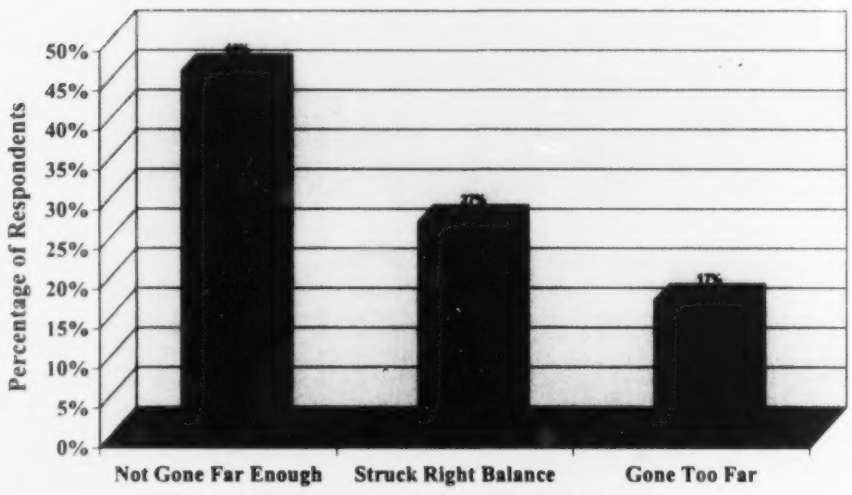
Beliefs about Environmental Laws and Regulations
(1997 data)



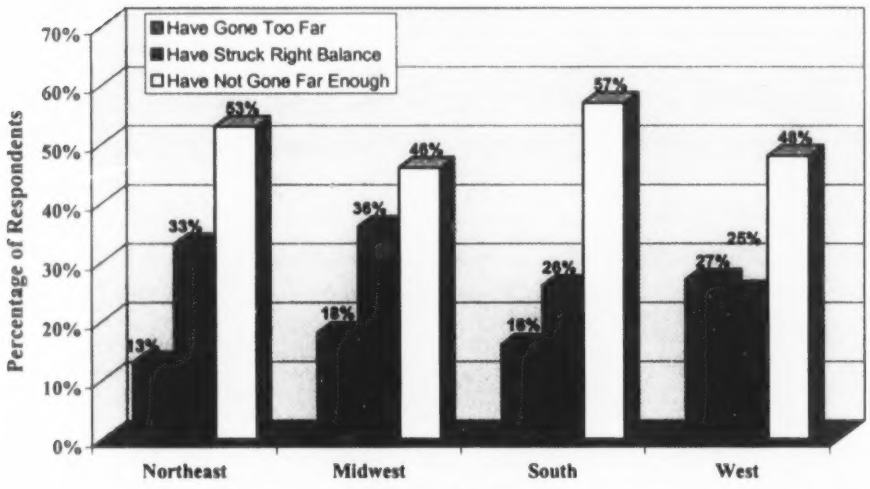
The question read: "There are differing opinions about how far we've gone with environmental protection laws and regulations. At the present time, do you think environmental protection laws and regulations have gone too far, or not far enough, or have struck about the right balance?"

This information shows that fewer than one in five adult Americans think regulation has gone too far while a strong plurality think it has to go farther to be effective. One might conclude from a review of the media coverage of environmental laws that a higher percentage than this think regulation has gone too far, but the numbers over the past six years are consistently low in this regard [never higher than 22%].

Women are more likely than men to think regulation has not gone far enough (59 % of women as opposed to 45 % of men). Men are more likely to say it has gone too far (22 % of men as compared to 15 % of women).

People in rural areas show the highest percentage (29 %) with the view that environmental regulation has gone too far with only 41 % of that group saying it has not gone far enough. The exact reason for this difference is uncertain, but it may have to do with traditional views of the environment by those living out in the "country" or the concerns people in food and timber production have about the possible effects of regulation on their livelihoods. Many farmers, for example, have been directly affected by wetlands regulations.

Beliefs about Environmental Regulations in Different Parts of the Country
(1997 data)



The question read: "There are differing opinions about how far we've gone with environmental protection laws and regulations. At the present time, do you think environmental protection laws and regulations have gone too far, or not far enough, or have struck about the right balance?"
Percentages are based on responses of 1,349 individuals. Individuals who answered "Don't Know" (152) were not included. Percentages are rounded to the nearest whole percentage.

There are also some notable regional differences with 13 % of those living in the Northeast saying environmental regulation has gone too far and 27 % in the West saying the same thing. Again, the explanations for these findings can only be speculated about and may be a reflection of the amount of public land existing in the West coupled with more of a sense of independence from government or there may be other factors.

Older individuals in America are less likely than younger people to think that environmental regulation has not gone far enough. Fifty-five percent of those respondents in the 18 to 34 age group say regulation did not go far enough while only 29% of those older than 65 have that view.

How Far Has Regulation Directed to Specific Environmental Issues Gone?

The following set of questions shows that people do make distinctions among different environmental issues when it comes to government.

Protecting Endangered Species Plants and Animals

When American adults are asked about regulations concerning endangered species, their responses reflect people's overall views of regulation with 21% saying "too far" while 41% say "not far enough".

Endangered species laws have received a high degree of coverage in the media in the past 20 years and tend to be a political "hot button" for many. Often the issue is framed as whether it is more important to protect a rare plant or insect or to provide jobs. Indeed, "anti" feelings concerning endangered species laws are somewhat stronger than any other regulatory category covered in this survey. Yet, only about one in five think the laws have gone too far while a plurality of 42% still say "not far enough."

A high level of knowledge about the environment influences perspectives on endangered species regulation with 29% of most knowledgeable respondents (9 or more correct answers on the 12-question knowledge test) saying regulation has gone too far while 33% say it has not gone far enough. Only 16% of lower performers (5 or fewer correct answers on the knowledge test) say endangered species regulation has gone too far while 45% say it has not gone far enough.

Also, men and women responded differently to this question. Twenty five percent of men say regulation concerning endangered species protection has gone too far while only 18% of women believe this to be the case. Thirty eight percent of men say "not far enough" while 44% of women have this view.

There are some notable regional differences to this question. In the West, where endangered species debates have been ongoing for many years involving the Northern Spotted Owl, Pacific Salmon and other species, a full 29% say they thought the laws have gone too far while 38% say not gone far enough by comparison. In the Northeast, 16% responded that endangered species laws have gone too far while 46% say not far enough. This may be a reflection of the lower profile the endangered species laws have had in that region or that the species protection laws have had less of an impact on the local economy.

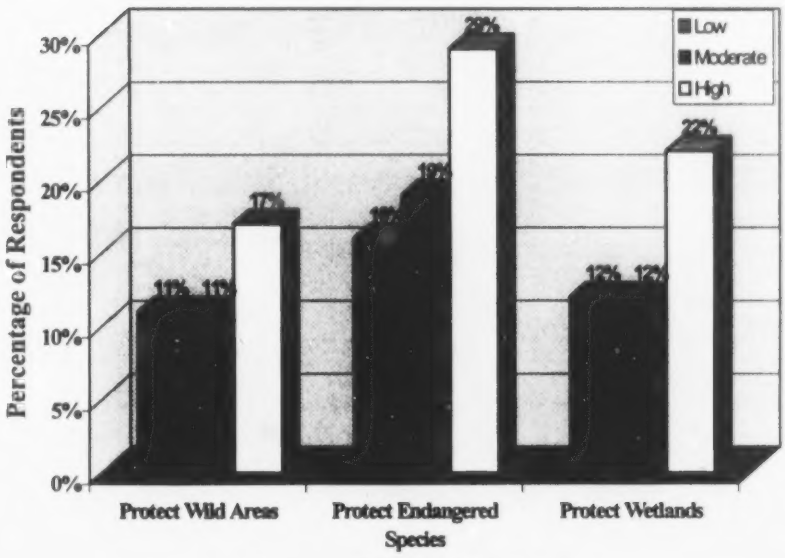
Protecting Wetland Areas

The protection of marshes, swamps and other wetland areas has been a concern in America because of the critical role they play in protecting clean water and providing habitat for fish and wildlife. The percentages reflect a more pro-environment stance when the issues of wetland regulation are considered (15% say "too far" while 44% say "not far enough."). This is approximately the same response as obtained for the past several years.

There are notable differences between men and women in their responses to this question with 19% of men saying regulation of wetland areas has gone too far compared to 11% of women.

Environmental knowledge also seems to affect responses to this question with 22% of the group having the most knowledge (9 questions or more correct) saying regulation has gone too far while only 12% who answered 5 or fewer questions correctly give the "gone too far" response.

Beliefs That Environmental Laws and Regulations Have Gone Too Far
(1997 data)



The question read: "There are differing opinions about how far we've gone with environmental protection laws and regulations. At the present time, do you think environmental protection laws and regulations have gone too far, or not far enough, or have struck about the right balance?" Percentages are based on a full sample of 1,501 respondents. Percentages are rounded to the nearest whole percentage. Shading of graph corresponds to the level of Environmental Knowledge.

Wild or Natural areas

Thirteen percent of Americans think regulation regarding wild or natural areas has gone too far and 48% say not far enough. This is approximately the same level of opposition and support as over the past several years. There is a six-point difference between men

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Moreover, as with wetlands and endangered species, levels of environmental knowledge significantly affect beliefs with 17% of the most knowledgeable group saying regulation has gone "too far" while only 11% of the least knowledgeable group think it has gone too far.

Air Quality Regulation

Asking Americans whether they think air quality regulation has gone too far show a decidedly different pattern than do the above three questions that focus more on the natural environment – endangered species, wetlands and natural areas. Only about 8 % of the respondents think regulation of air pollution has gone too far while 62 %, a strong majority, say "not far enough". Speculations are this has to do with health and an awareness of a more direct and personal impact on people.

There are noteworthy differences between men and women in responding to this question with 11 % of men saying air quality regulation has gone too far while only 5 % of women believe so. Fifty seven percent of men and sixty seven percent of women say that air quality regulation has not gone far enough. This gap is the widest between men and women appearing in the survey.

However, unlike the above three questions concerning nature protection, environmental knowledge does not play a significant role in how people respond to the need for clean air regulation. It would appear that views on pollution control are strongly held among the public irrespective of how much they know about the issues.

Water Quality Regulation

The pro-environment feeling is even stronger when discussing water pollution regulation. Only 4% of adult Americans say it has gone too far while 72% say it has not gone far enough. While a wetland area or some other natural area or species may not affect their day-to-day lives, everyone needs pure water quality.

In responses to this question, the gap between men and women is still significant (women more strongly support increased regulation of clean water), but it is less pronounced and as with air quality, the impact of knowledge levels does not play a significant role. There are also no major regional differences.

Perhaps the most telling statistic is that nearly one half (49%) of all the people who say regulation has gone too far *in general*, reverse their position when it comes to water quality issues and say that water regulation has not gone far enough.

Beliefs About Laws and Regulations for Specific Types of Environmental Problems
Beliefs About Environmental Protection Regulations and Laws

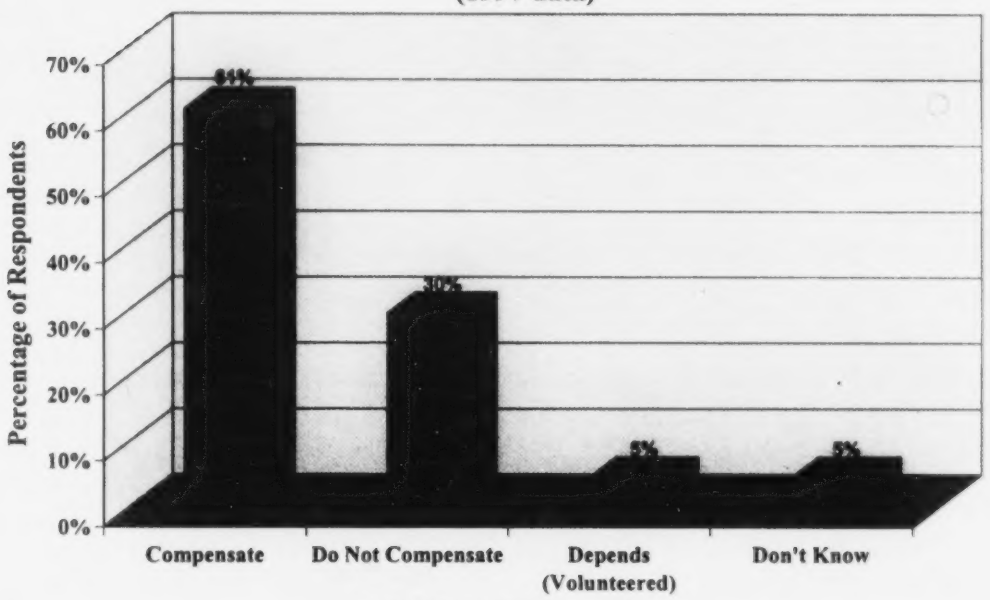
	Type of Environmental Problem				
	Water Pollution	**Air Pollution**	**Protecting Wild or Natural Areas**	**Protecting Wetlands**	**Protecting Endangered Species of Plants and Animals**
Have Not Gone Far Enough	72%	62%	48%	44%	41%
Have Struck About t the Right Balance	19%	24%	32%	27%	33%
Have Gone Too Far	4%	8%	13%	15%	21%
Don't Know	6%	6%	7%	14%	5%

Percentages are based on the full sample of 1501 and are rounded to the nearest whole number.

Should the Government Compensate People for Regulations to Protect Wetlands and Endangered Species?

When Americans were asked in 1997 whether they think the government should compensate people who lose some of their property value due to an environmental regulation, 61%—the lowest number ever in the survey said "yes". This is still a strong majority, but in 1995, using weighted data, it was 66% and 72% in 1996. Thirty percent said, "do not compensate." Some of this difference from previous years may have to do with a different format for the survey and the 1997 use of unweighted data. Moreover, in the past this question was linked to other compensation questions that were specific to wetlands and endangered species. That linkage may have influenced the responses that followed. Gender or environmental knowledge did not significantly affect responses to this question. (See Graph on Compensation for Impact of Environmental Legislation)

Compensation for Impact of Environmental Legislation
(1997 data)

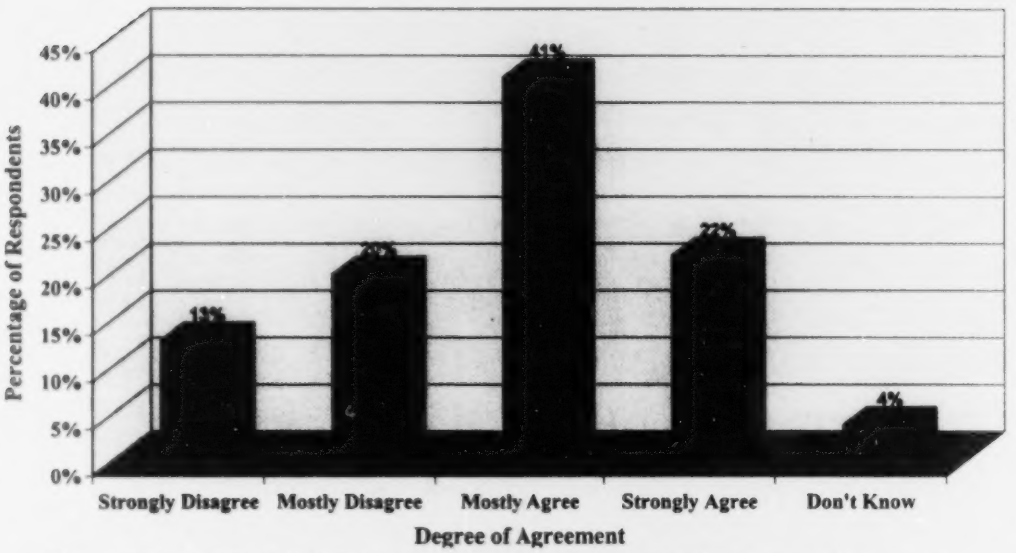


The question read: "Sometimes, protecting an endangered species or wetland means that a private individual or business is restricted in how it can use its land, and therefore the value of the land may be reduced. Do you think the government should be required to compensate that person or business for the lost value of the land, or not?"

Will Technology be a Major Part of Our Future Environmental Solutions?

Americans express considerable hope about our environmental future, and at least part of this hopefulness stems from a belief that technology -- better fuel efficiency, less polluting machinery, alternative materials, better waste recycling -- will play a key role. Two out of three people, or 63%, either agreed or strongly agreed with this notion while 33% disagree. This shows there is a basic belief in technology in America, and there is a general sense of hopefulness that we can ultimately solve our environmental problems through the use of technology. (See Graph on Technology Will Help Solve Environmental Problems)

Technology Will Help Solve Environmental Problems
(1997 data)



The question read: "Please indicate for each of the following statements whether you strongly agree, mostly agree, mostly disagree, or strongly disagree: Technology will find a way of solving environmental problems?" Percentages are based on responses of the full sample of 1,501 individuals. Percentages were rounded to the nearest whole number.

Will the Next Ten Years Be Our Chance to Avoid Environmental Catastrophe?

Notwithstanding hopefulness about the role of technology in our environmental future, a majority of Americans (51%) believe that the next ten years are our last chance to avoid a major environmental disaster. Only 29% disagreed with this assertion. This would indicate that just underneath a generally positive and hopeful attitude about our environmental future there may be a deeper concern that something could go very wrong in the next decade and that we need to take steps to prevent that from happening.

Increased knowledge plays a noteworthy role regarding this question. There is an 11 point difference between the most knowledgeable group and the least knowledgeable group (50 % of the "most" and 61 % of the "least") on whether we face a disaster in the next decade. The more knowledgeable group *disagreed* with this statement at a much higher rate (47 % vs. 29 %). This distinct difference would indicate that increased knowledge clearly affects one's views on the potential for an environmental catastrophe.

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Beliefs That the Next 10 Years Are Critical for Environmental Protection			
The Next 10 Years Are the Last Chance to Save Earth	Level of Environmental Knowledge		
	Low	**Moderate**	**High**
Mostly Disagree or Strongly Disagree	29%	32%	47%
Mostly Agree or Strongly Agree	61%	61%	50%
Don't Know	10%	7%	3%

Question Read: "Please indicate for the following statement whether you strongly agree, mostly agree, mostly disagree, or strongly disagree: The next 10 years are the last decade when humans will have a chance to save the Earth from environmental catastrophe."

Percentages are based on responses of the full sample of 1501 individuals. Percentages were rounded to the nearest whole number.

Should We Shift Federal Spending from other Programs to the Environment?

A majority of Americans (59%) support the federal government shifting its spending into the environment from other programs while 33% do not support such a shift. This level of support has been reasonably constant over the six years of the survey.

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Environmental Action Orientation of American Adults

The 1997 NEETF/Roper survey looked, for the first time in its six-year history, at the relationship of attitudes, knowledge and behaviors.

Numerous Actions on Behalf of the Environment

Ten activities were assessed in the survey to determine whether the respondents engaged in them frequently, sometimes or never. For example, they were asked whether they ever engaged in environmental conservation activities such as turning off the lights when leaving a room or conserving water in their homes. Nearly 90% of Americans engage in at least six of the ten basic activities assessed. Over 25% engage in 9 or 10 activities on a regular basis. There was only one individual in the entire survey sample who said he or she did not undertake any of the activities listed! From these data one can only conclude that American adults are active when it comes to the environment.

Some activities have extremely high levels of participation. Ninety nine percent of the respondents say they save energy and 91% say they save water. Ninety two percent report buying biodegradable or recyclable products. Comparing these responses to the knowledge assessment, one finds that in some instances, people engage the most in activities related to subjects they know the least about, e.g., energy and water. It should be noted, however, that saving water and energy both have economic benefits to individuals and that cost saving is a major incentive to engage in an environmental protective activity (see table on Pro-Environmental Activities).

Knowledge about the Environment Is Related to Pro-Environment Behaviors

Example One: The relationship between knowledge about landfills and behaviors that reduce household trash.

Eighty three percent of our respondents correctly identified where most household garbage ends up, in landfills. Individuals who know that most garbage ends up in landfills are about 6 percentage points more likely to recycle *and* cut down on household trash than individuals who do not know this fact. Even when an activity is widespread such as recycling, there is a positive relationship between knowledge and behavior.

Percentage of Respondents Who Reported Engaging in Pro-Environmental Activities			
Type of Pro-Environmental Activity	**Frequency of Participation**		
	Frequently	**Sometimes**	**Total**
Conserving Electricity	87%	12%	99%
Watching Environmental Shows on Television	51%	42%	93%
Buying Biodegradable or Recyclable Products	50%	42%	92%
Conserving Water	61%	30%	91%
Reducing Household Trash	58%	32%	90%
Recycling	64%	24%	88%
Avoiding Chemicals in Yard or Garden	40%	30%	70%
Donating Money to Environmental Organizations	11%	49%	60%
Using Alternative Forms of Transportation (Rather than Car)	14%	25%	39%
Doing Volunteer Work for an Environmental Organization	6%	22%	28%

Question Read: "Now I would like to ask you about some of the things you may do in your day-to-day life. For each of the following things, would you please tell me whether you never do it, sometimes do it, or frequently do it." (List of the above items was then read.)

Percentages are based on the full sample of 1501. The "Total" represents the combined percentages of individuals who said they frequently or sometimes participated in an activity. The other individuals replied either "Don't Know" or "Never" when asked how frequently they participated in the activity.

Example Two: The relationship between knowledge about water pollution and avoiding chemical use in the yard or garden.

Only 23% of adult Americans know that run-off pollution is the leading source of water pollution in the United States. The behavior that relates most closely to this question is avoiding chemicals in the yard and garden. Individuals who know that the major source of water pollution comes from run-off and not primarily from industry are more likely to

try to prevent pollution in their activities than are individuals who do not know about sources of water pollution.

Relationship Between Knowledge About Major Source of Water Pollution and Personal Action to Reduce Yard and Garden Chemicals

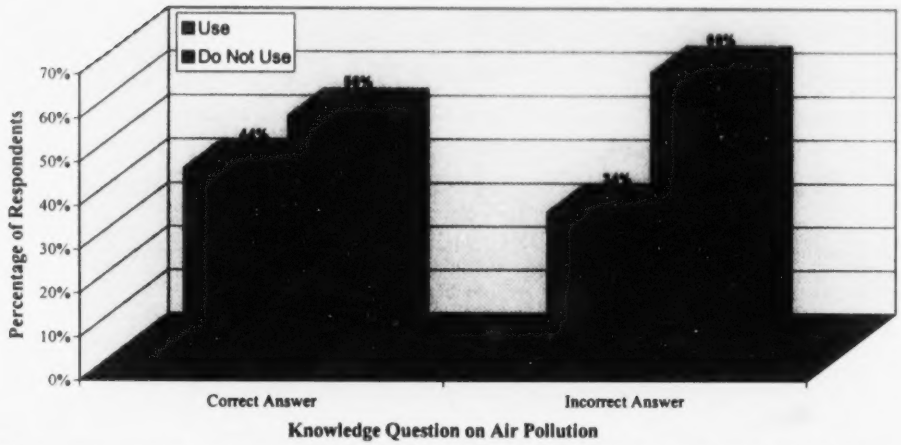
Frequency of Reducing Yard and/or Garden Chemicals	Incorrect Answer on Knowledge Question About Water Pollution	Correct Answer on Knowledge Question About Water Pollution
Never	34%	18%
Sometimes	29%	33%
Frequently	37%	49%
Total	100%	100%

Percentages are based on the number of individuals correctly (342) or incorrectly (1159) answering the knowledge question concerning water pollution. Percentages were rounded to the nearest whole number

Example Three: The relationship between knowledge about air pollution and using alternative transportation.

Some 69% of the respondents know that motor vehicles are the major cause of air pollution. In general, this knowledge has little effect on behavior. However, individuals who know that cars are major polluters of air and who have alternative transportation available (i.e. do not live in rural areas) are more likely to use alternative transportation (43%) than individuals who do not know the correct answer (37%). Availability is just one factor that can influence use of alternative transportation. Convenience is another. For parents, using a subway or bus may not be very convenient. When both availability and convenience are considered, knowledge has a definite impact on use of alternative transportation. Almost half (44%) of the individuals who had accurate knowledge of the causes of air pollution, who also have alternative transportation available, *and* who do not have to transport children report using alternative transportation.

Use of Alternative Transportation and Knowledge about Air Pollution (1997 data)



The question read: "Carbon monoxide is a major contributor to air pollution in the U.S. Which of the following is the biggest source of carbon monoxide?" Later the following question was asked: "Now I would like to ask you about some of the things you may do in your day-to-day life. For each of the following things, would you please tell me whether you never do it, sometimes do it, or frequently do it: Use other types of transportation, such as biking or the bus, instead of driving your car." The percentages were rounded to the nearest whole number and are based upon a subset of responses from non-rural and non-parent respondents.

Volunteering for the Environment

Last year the survey found that some 27% of Americans volunteered some time for an environmental cause. In 1997, 28% volunteered with no statistical difference between men and women. The most telling statistic about those who volunteer for the environment is their education level. The more education the respondent has the more likely he or she is to volunteer.

When US President Bill Clinton and Former General Colin Powell held a forum last year on the importance of volunteerism in America, national polls reported that nearly 60% of Americans did some form of volunteer work. This indicates that nearly one half of all the people who do volunteer work during the year will do some of it for the environment. (See Table on Education Levels of Respondents Who Report Volunteering With an Environmental Group)

Education Levels of Respondents Who Report Volunteering With an Environmental Group	
Education Level	**Percentage of Respondents Who Volunteered**
Eighth Grade or Less	8%
Some High School	19%
High School Graduate	23%
Some College	32%
College Graduate	33%
Post Graduate Work	37%

Percentages are based on responses of 1492 individuals. Nine individuals did not specify their level of education, thus their data are not included. Percentages are rounded to the nearest whole number.

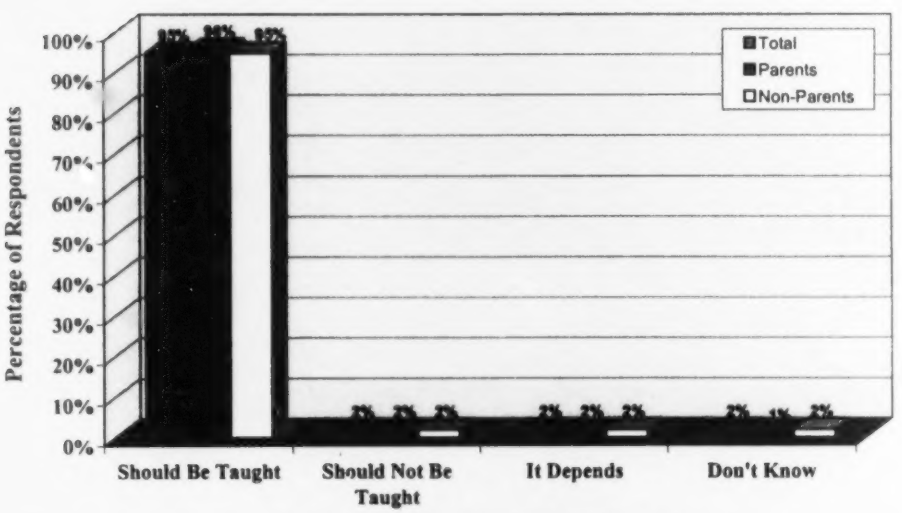
Environmental Education for Children

Controversy surrounding environmental education in the past two years is due to claims by critics that EE may present only one side of the environment/economic development picture. The Foundation decided to test the critics' assertions that parents are 'upset' about environmental education by asking them their views directly.

Ninety Five Percent of Adults and 96 Percent of Parents Support Environmental Education Being Taught in the Schools

Notwithstanding the general lack of environmental knowledge among American adults, they support America's children learning more about the environment. When adults are asked whether they supported environmental education being taught in the schools, an incredible 95% answered yes and only 2% objected. Fully 96% of parents support environmental education being taught in the schools.

Belief about Environmental Education Being Taught in Schools (1997 data)



The question read: "Do you think environmental education should be taught in schools?"
Nine individuals did not respond to the question about children, therefore percentages are based on a total of 1,495 individuals. Of these, 563 were classified as parents and 932 were classified as non-parents. Percentages are rounded to the nearest whole percentage.

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Information Taught in the Schools Does Not Seem to Influence Parental Knowledge as Previously Thought

The National Report Card challenges a widely held view that parents learn about the environment from their children who learn about it in school. This survey finds no knowledge difference between parents with children in schools and any other adults. It is evident in this survey that parents are not learning about the environment from their kids as previously thought.

Special Report on Outdoor Sports Enthusiasts

Because the NEETF/Roper Survey was undertaken by Times Mirror Magazines for four of the past six years, it contains important information on knowledge, attitudes and behaviors of those who engage in fishing, hunting, golf, skiing, and boating. These groups are important because they spend more time outdoors than other Americans do and are often trend leaders.

There are unique characteristics to those who get outside for recreation as follows.

Sports Enthusiasts Are More Knowledgeable About the Environment Than Non-Sports Enthusiasts.

Sports enthusiasts scored significantly higher (7.5 questions right) on our environmental report card than did non-sports enthusiasts (6.3 questions right). Apparently, those interested in outdoor activities also are interested in learning accurate information about the environment.

Mean Number of Environmental Knowledge Questions Answered Correctly by Male and Female Sports Enthusiasts and Non-Sports Enthusiasts

Participation in Outdoor Sports	Males	Females	Male and Female Combined
Sports Enthusiast	8.0	6.7	7.5
Non-Sports Enthusiasts	7.2	5.8	6.3
Full Sample	7.6	6.2	7.0

Numbers in table indicate the mean number of correct answers for the 12 questions on the environmental knowledge test. Scores are based on the full sample of 1501 (751 males; 750 females). Means are rounded to the nearest tenth.

Outdoor Sports Enthusiasts Also Participate More in Pro-Environmental Activities

In looking at the frequency with which people participate in pro-environment activities, sports enthusiasts averaged 7.7 activities (out of 10) while non-sports enthusiasts averaged 7.2 activities. We also looked at the degree to which outdoor sports enthusiasts engaged in different types of pro-environmental activities. For most activities, there were no differences with non-sports enthusiasts. However, for three activities there were differences. (See table on Percentage of Sports Enthusiasts and Non-Sports Enthusiasts Who Reported Participating in Three Pro-environmental Activities)

Percentage of Sports Enthusiasts and Non-Sports Enthusiasts Who Reported Participating in Three Pro-environmental Activities

	Type of Pro-Environmental Activity		
	Avoiding Chemicals in Yard and Home	**Buying Biodegradable and Recyclable Products**	**Volunteering to Help Environmental Groups**
Sports Enthusiast	75%	95%	34%
Non-Sports Enthusiasts	63%	89%	21%
Total Sample	70%	93%	28%

Percentages in table are based on data from 876 individuals classified as sports enthusiasts and 625 non-sports enthusiasts. Percentages are rounded to the nearest whole number.

Conclusion

The 1997 NEETF/Roper National Report Card looks at the role environmental knowledge plays in American life and the attitudes of the American people. It tells us that two out of three adults get failing grades on the environment and that we have a long way to go before most adult Americans have even a basic understanding of environmental problems and their causes. In addition, it indicates that without such widespread public knowledge, some of our most critical environmental problems will be difficult to solve.

A significant finding for the first time this year is that high levels of environmental knowledge let people see more opportunities for other compromises and solutions. This may be counter-intuitive to the belief that the more one knows about the environment the more one must support environmental regulation or think a catastrophe is imminent.

The survey also tells us that Americans care deeply about the environment, and that those in favor of environmental programs generally outnumber those opposed by three to one (or even five to one on some issues). This support has been steady over the six years of this survey and its consistency is a testament to its strength.

America is generally a health conscious society that cares about protecting nature and wild species, but cares even more about having clean air to breath and pure water to drink. To that end, people are highly supportive of government action and agree with programs that protects air and water quality.

We are also an environmentally active nation. Nine out of ten of us try to conserve energy, save water, recycle and do a number of other activities as our own small part in protecting the environment.

Finally, the survey tells us that even if we as adults do not know much about the environment and have a long way to go in learning, we are *certain* we want our children to have a good environmental education. The 95% approval rating that adult Americans give to environmental education being taught in our schools sets the stage for a very promising future when, perhaps, all Americans will make the "Environmental Dean's List."